W0200153312 Comparison

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AAM39781 standard; Protein; 772 AA
ID
XX
     AAM39781;
AC
XX
DT
     22-OCT-2001 (first entry)
XX
DΕ
     Human polypeptide SEQ ID NO 2926.
XX
     Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer;
KW
KW
     peripheral nervous system; neuropathy; central nervous system; CNS;
     Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic;
KW
KW
     amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;
     chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
KW
KW
     leukaemia.
XX
os
     Homo sapiens.
XX
PN
     WO200153312-A1.
XX
PD
     26-JUL-2001.
XX
     26-DEC-2000; 2000WO-US34263.
PF
XX
     21-JAN-2000; 2000US-0488725.
PR
     25-APR-2000; 2000US-0552317.
PR
     09-JUL-2000; 2000US-0598042.
PR
     19-JUL-2000; 2000US-0620312.
PR
     03-AUG-2000; 2000US-0653450.
PR
     14-SEP-2000; 2000US-0662191.
PR
PR
     19-OCT-2000; 2000US-0693036.
PR
     29-NOV-2000; 2000US-0727344.
XX
PA
     (HYSE-) HYSEQ INC.
XX
ΡI
     Tang YT, Liu C, Asundi V, Chen R, Ma Y, Qian XB, Ren F, Wang D;
PΙ
     Wang J, Wang Z, Wehrman T, Xu C, Xue AJ, Yang Y, Zhang J;
     Zhao QA, Zhou P, Goodrich R, Drmanac RT;
PI
XX
DR
     WPI; 2001-442253/47.
DR
     N-PSDB; AAI58937.
XX
     Novel nucleic acids and polypeptides, useful for treating disorders
PΤ
PT
     such as central nervous system injuries -
XX
PS
     Example 4; SEQ ID NO 2926; 10078pp; English.
XX
CC
     The invention relates to human nucleic acids (AAI57798-AAI61369) and
     the encoded polypeptides (AAM38642-AAM42213) with nootropic,
CC
CC
     immunosuppressant and cytostatic activity. The polynucleotides are useful
CC
     in gene therapy. A composition containing a polypeptide or polynucleotide
CC
     of the invention may be used to treat diseases of the peripheral nervous
CC
     system, such as peripheral nervous injuries, peripheral neuropathy and
     localised neuropathies and central nervous system diseases, such as
CC
     Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic
CC
     lateral sclerosis, and Shy-Drager Syndrome. Other uses include the
CC
CC
     utilisation of the activities such as: Immune system suppression,
     Activin/inhibin activity, chemotactic/chemokinetic activity, haemostatic
```

CC and thrombolytic activity, cancer diagnosis and therapy, drug screening, CC assays for receptor activity, arthritis and inflammation, leukaemias and CC C.N.S disorders.

CC Note: The sequence data for this patent did not form part of the printed CC specification.

XX

SQ Sequence 772 AA;

| Bes |     | atch 100.0%; Score 4037; DB 22; Length 772; cal Similarity 100.0%; Pred. No. 0; 772; Conservative 0; Mismatches 0; Indels 0; G | aps         | 0; |
|-----|-----|--|-------------|----|
| Qу  | 1   | MRLSSLLALLRPALPLILGLSLGCSLSLLRVSWIQGEGEDPCVEAVGERGGPQNPDSRAR   | 60          |    |
| Db  | 1   |  | 60          |    |
| Qу  | 61  | LDQSDEDFKPRIVPYYRDPNKPYKKVLRTRYIQTELGSRERLLVAVLTSRATLSTLAVAV   | 120         |    |
| Db  | 61  | ldqsdedfkprivpyyrdpnkpykkvlrtryiqtelgsrerllvavltsratlstlavav   | 120         |    |
| Qу  | 121 | NRTVAHHFPRLLYFTGQRGARAPAGMQVVSHGDERPAWLMSETLRHLHTHFGADYDWFFI   | 180         |    |
| Db  | 121 | $\tt nrtvahhfprllyftgqrgarapagmqvvshgderpawlmsetlrhlhthfgadydwffi$   | 180         |    |
| Qу  | 181 | MQDDTYVQAPRLAALAGHLSINQDLYLGRAEEFIGAGEQARYCHGGFGYLLSRSLLLRLR   | 240         |    |
| Db  | 181 | $\verb mqddtyvqaprlaalaghlsinqdlylgraeefigageqarychggfgyllsrslllrlr $  | 240         |    |
| QУ  | 241 | PHLDGCRGDILSARPDEWLGRCLIDSLGVGCVSQHQGQQYRSFELAKNRDPEKEGSSAFL   | 300         |    |
| Db  | 241 | phldgcrgdilsarpdewlgrclidslgvgcvsqhqgqqyrsfelaknrdpekegssafl   | 300         |    |
| Qy  | 301 | SAFAVHPVSEGTLMYRLHKRFSALELERAYSEIEQLQAQIRNLTVLTPEGEAGLSWPVGL   | 360         |    |
| Db  | 301 | safavhpvsegtlmyrlhkrfsalelerayseieqlqaqirnltvltpegeaglswpvgl   | 360         |    |
| Qу  | 361 | PAPFTPHSRFEVLGWDYFTEQHTFSCADGAPKCPLQGASRADVGDALETALEQLNRRYQP   | 420         |    |
| Db  | 361 | papftphsrfevlgwdyfteqhtfscadgapkcplqgasradvgdaletaleqlnrryqp   | 420         |    |
| Qλ  | 421 | RLRFQKQRLLNGYRRFDPARGMEYTLDLLLECVTQRGHRRALARRVSLLRPLSRVEILPM   | 480         |    |
| Db  | 421 | ${\tt rlrfqkqrllngyrrfdpargmeytldlllecvtqrghrralarrvsllrplsrveilpm}$   | 480         |    |
| Qγ  | 481 | PYVTEATRVQLVLPLLVAEAAAAPAFLEAFAANVLEPREHALLTLLLVYGPREGGRGAPD   | 540         |    |
| Db  | 481 | pyvteatrvqlvlpllvaeaaaapafleafaanvleprehalltlllvygpreggrgapd   | <b>54</b> 0 |    |
| Qγ  | 541 | PFLGVKAAAAELERRYPGTRLAWLAVRAEAPSQVRLMDVVSKKHPVDTLFFLTTVWTRPG   | 600         |    |
| Db  | 541 | pflgvkaaaaelerrypgtrlawlavraeapsqvrlmdvvskkhpvdtlfflttvwtrpg   | 600         |    |
| Qу  | 601 | PEVLNRCRMNAISGWQAFFPVHFQEFNPALSPQRSPPGPPGAGPDPPSPPGADPSRGAPI   | 660         |    |
| Db  | 601 | pevlnrcrmnaisgwqaffpvhfqefnpalspqrsppgppgagpdppsppgadpsrgapi   | 660         |    |
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661 GGRFDRQASAEGCFYNADYLAARARLAGELAGQEEEEALEGLEVMDVFLRFSGLHLFRAV 720
Qу
         661 ggrfdrgasaegcfynadylaararlagelaggeeeealeglevmdvflrfsglhlfrav 720
Db
      721 EPGLVOKFSLRDCSPRLSEELYHRCRLSNLEGLGGRAQLAMALFEQEQANST 772
Qy
         721 epglvqkfslrdcsprlseelyhrcrlsnleglggraqlamalfeqeqanst 772
Db
RESULT
AAB80269
    AAB80269 standard; Protein; 772 AA.
XX
     AAB80269;
AC
XX
    24-APR-2001 (first entry)
DT
XX
    Human PRO339 protein.
DE
XX
    Human's PRO; dermatological; antipsoriatic; cytostatic; antiinflammatory;
KW
KW
    antiparkinsonian nootropic; neuroprotective; vulnerary; cardiant;
    antian diogenic; vasotropic; antiasthmatic; antirheumatic; cancer;
KW
    antiarthritic; antiinfertility; antidiabetic; antiviral; diabetes;
KW
KW
    ophthalmological; gene therapy; skin disease; gastrointestinal disorder;
KW
    ischaemia; inflammation.
XX
OS
    Homo sapiens.
XX
PN
    WO200104311-A1.
XX
PD
    18-JAN-2001.
XX
    22-FEB-2000; 20000-US04414.
PF
XX
                   99NS-0143048.
PR
    07-JUL-1999;
                   99ປ່ຶ່ຊ-0145698.
PR
    26-JUL-1999;
                   99US\0146222.
PR
    28-JUL-1999;
                   99WO-\US20594.
PR
    08-SEP-1999;
PR
    13-SEP-1999;
                   99WO-U$20944.
                   99WO-US21090.
    15-SEP-1999;
PR
    15-SEP-1999;
                   99WO-US2\1547.
PR
PR
    05-OCT-1999;
                   99WO-US23Q89.
PR
    29-NOV-1999;
                   99WO-US28214.
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    30-NOV-1999;
                   99WO-US28313
                   99WO-US30095
PR
    16-DEC-1999;
                   99WO-US30911.
PR
    20-DEC-1999;
                   99WO-US30999.
PR
    20-DEC-1999;
                   99WO-US00219.
PR
    05-JAN-2000;
XX
PA
    (GETH ) GENENTECH INC.
XX
ΡI
    Ashkenazi AJ, Botstein D, Desnoyers L,
                                            Eaton DL, Ferrara N;
PΙ
    Filvaroff E, Fong S, Gao W, Gerber \,
                                            Gerritsen ME, Goddard A;
    Godowski PJ, Grimaldi CJ, Gurney AL,
PΙ
                                          Hillan KJ, Kljavin IJ;
PΙ
    Mather JP, Pan J, Paoni NF, Roy MA,
                                          Stewart TA, Tumas D;
PΙ
    Williams PM, Wood WI;
XX
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```
AAI58937 standard; cDNA; 2710 BP.
AC
     AAI58937;
DΤ
     22-OCT-2001 (first entry)
DE
     Human polynucleotide SEQ ID NO 1140.
     Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer;
KW
     peripheral nervous system; neuropathy; central nervous system; CNS;
ĸw
KW
     Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic;
ĸw
     amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;
     chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
KW
KW
     leukaemia; ss.
OS
     Homo sapiens.
XX
     WO200153312-A1.
PN
ХX
PD
     26-JUL-2001.
ХХ
PF
     26-DEC-2000; 2000WO-US34263.
XX
PR
     21-JAN-2000; 2000US-0488725.
     25-APR-2000; 2000US-0552317.
PR
PR
     09-JUL-2000; 2000US-0598042.
     19-JUL-2000; 2000US-0620312.
PR
     03-AUG-2000; 2000US-0653450.
PR
     14-SEP-2000; 2000US-0662191.
PR
     19-OCT-2000; 2000US-0693036.
PR
     29-NOV-2000; 2000US-0727344.
PR
XX
     (HYSE-) HYSEQ INC.
PΑ
XX
     Tang YT, Liu C, Asundi V, Chen R, Ma Y, Qian XB, Ren F, Wang D; Wang J, Wang Z, Wehrman T, Xu C, Xue AJ, Yang Y, Zhang J;
ΡI
ΡI
     Zhao QA, Zhou P, Goodrich R, Drmanac RT;
PΤ
XX
DR
     WPI; 2001-442253/47.
DR
     P-PSDB; AAM39781.
XX
     Novel nucleic acids and polypeptides, useful for treating disorders
РT
PT
     such as central nervous system injuries -
XX
PS
     Claim 1; SEQ ID NO 1140; 10078pp; English.
XX
CC
     The invention relates to human nucleic acids (AAI57798-AAI61369) and
     the encoded polypeptides (AAM38642-AAM42213) with nootropic,
CC
     immunosuppressant and cytostatic activity. The polynucleotides are useful
CC
     in gene therapy. A composition containing a polypeptide or polynucleotide
CC
     of the invention may be used to treat diseases of the peripheral nervous
CC
     system, such as peripheral nervous injuries, peripheral neuropathy and
CĊ
     localised neuropathies and central nervous system diseases, such as
CC
     Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic
CC
CC
     lateral sclerosis, and Shy-Drager Syndrome. Other uses include the
CC
     utilisation of the activities such as: Immune system suppression,
CC
     Activin/inhibin activity, chemotactic/chemokinetic activity, haemostatic
     and thrombolytic activity, cancer diagnosis and therapy, drug screening,
CC
CC
     assays for receptor activity, arthritis and inflammation, leukaemias and
     C.N.S disorders.
CC
CC
     Note: The sequence data for this patent did not form part of the printed
CC
     specification.
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                          100.0%; Pred. No. 0;
  Best Local Similarity
  Matches 2692; Conservative
                                  0; Mismatches
                                                    0: Indels
                                                                   0; Gaps
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Qy

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| DЪ         | 67  |   | 126  |
| Qy         | 218 | attgaccccaggttctctggttaaaactgaaagcctactactggcctggtgcccatcaat  | 277  |
| Db         | 127 |   | 186  |
| Qу         | 278 | ccattgatccttgaggctgtgcccctggggcacccacctggcagggcctaccaccatgcg  | 337  |
| рь         | 187 |   | 246  |
| Qy         | 338 | actgagetecetgttggetetgetgeggeeagegetteceeteatettagggetgtetet  | 3 97 |
| DЪ         | 247 | actgagetceetgttggetetgetgeggecagegetteceeteatettagggetgtetet  | 306  |
| Qу         | 398 | ggggtgcagcctgagcctcctgcgggtttcctggatccagggggaggga   | 457  |
| DЪ         | 307 | ggggtgcagcctgagcctcctgcgggtttcctggatccagggggaggga   | 366  |
| Qу         | 458 | tgtegaggetgtaggggagegaggagggeeacagaatecagattegagageteggetaga  | 517  |
| DЪ         | 367 | tgtcgaggctgtaggggagcgaggaggcacagaatccagattcgagagctcggctaga  | 426  |
| Qy         | 518 | ccaaagtgatgaagacttcaaaccccggattgtcccctactacagggaccccaacaagcc  | 577  |
| DЬ         | 427 | ccaaagtgatgaagacttcaaaccceggattgtcccctactacagggaccccaacaagcc  | 486  |
| Qу         | 578 | ctacaagaaggtgctcaggactcggtacatccagacagagctgggctcccgtgagcggtt  | 637  |
| Db         | 487 | ctacaagaaggtgctcaggactcggtacatccagacagagctgggctcccgtgagcggtt  | 546  |
| Qу         | 638 | gctggtggctgtcctgacctcccgagctacactgtccactttggccgtggctgtgaaccg  | 697  |
| Db         | 547 | getggtggetgteetgaeeteeegagetaeaetgteeaetttggeegtggetgtgaaeeg  | 606  |
| Qу         |     | tacggtggcccatcacttccctcggttactctacttcactgggcagcgggggcccgggc   |      |
| DЪ         | 607 | tacggtggcccatcacttccctcggttactctacttcactgggcagcggggggcccgggc  | 666  |
| Qу         |     | tccagcagggatgcaggtggtgtctcatggggatgagcggcccgcctggctcatgtcaga  |      |
| DЪ         |     | tecageagggatgeaggtggtgteteatggggatgageggeeegeetggeteatgteaga  |      |
| Qу         |     | gaccetgegeeacetteacacacactttggggeegactacgactggttetteateatgact   |      |
| DЪ         |     | gaccotgogocacottoacacacatttggggcogactacgactggttottoatcatgca   |      |
| Qу         |     | ggatgacacatatgtgcaggcccccgcctggcagcccttgctggccacctcagcatcaa   |      |
| <b>D</b> b |     | ggatgacacatatgtgcaggccccccgcctggcagcccttgctggccacctcagcatcaa  |      |
| Qy<br>Ti   |     | ccaagacctgtacttaggccgggcagaggagttcattggcgcaggcgaggcccggta   |      |
| Db         |     | ccaagacctgtacttaggccgggcagaggagttcattggcgcaggcgagcaggcccggta<br>ctqtcatggggctttggctacctgttqtcacggagtctcctgcttcgtctgcggccaca |      |
| Qу         |     | ctgtcatgggggctttggctacctgttgtcacggaqtctcctgcttcgtctgcggccaca  |      |
| Db<br>Qу   |     | tetggatggetgeegaggagacatteteagtgeeegteetgaegagtggettqgaegetg  |      |
| DΡ         |     | tetggatggetgetgaggagacatteteagtgetegatggatggetggatggatgg  |      |

| Qy       | 1118 cctcattgactctctgggcgtcggctgtgtctcacagcaccaggggcagcagtatcgctc 1177  |
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| Db       | 1027 cctcattgactctctgggcgtcggctgtgtctcacagcaccaggggcagcagtatcgctc 1086  |
| Qy       | 1178 atttgaactggccaaaaatagggaccctgagaaggaagggagctcggctttcctgagtgc 1237  |
| Db       | 1087 atttgaactggccaaaaatagggaccctgagaaggaagggagctcggctttcctgagtgc 1146  |
| Qy       | 1238 cttcgccgtgcaccctgtctccgaaggtaccctcatgtaccggctccacaaacgcttcag 1297  |
| DÞ       | 1147 cttcgccgtgcaccctgtctccgaaggtaccctcatgtaccggctccacaaacgcttcag 1206  |
| Qy       | 1298 cgctctggagttggagcgggcttacagtgaaatagaacaactgcaggctcagatccggaa 1357  |
| Db       | 1207 cgctctggagttggagcgggcttacagtgaaatagaacaactgcaggctcagatccggaa 1266  |
| Qy       | 1358 cetgacegtgetgacecegaaggggaggeaggetgagetggeeggttgggeteeetge 1417  |
| Db       | 1267 cetgaccgtgetgacceccgaaggggaggcaggctgagctggcccgttgggctccctgc 1326   |
| Qy       | 1418 teettteacaccacactetegetttgaggtgetggggetagtteacagagcagca 1477   |
| Db       | 1327 teettteacaceacactetegetttgaggtgetggggetgggactaetteacagagcagca 1386   |
| Qγ       | 1478 cacetteteetgtgcagatggggeteecaagtgcccactacagggggctagcagggggg 1537   |
| Db       | 1387 caccttetcetgtgcagatggggcteccaagtgcccactacagggggctagcagggggga 1446  |
| Qy<br>Db | 1538 egtgggtgatgegttggagactgccctggagcagctcaatcggcgctatcagccccgcct 1597  |
| Qy       | 1598 gcgcttccagaagcagcgactgctcaacggctatcggcgcttcgacccagcacgggcat 1657   |
| Db       |   |
| Qy       | 1658 ggagtacaccctggacctgctgttggaatgtgtgacacagcgtgggcaccggcgggccct 1717  |
| Db       |   |
| Qy       | 1718 ggctcgcagggtcagcctgctgcggccactgagccgggtggaaatcctaccta  |
| DЬ       | 1627 ggctcgcagggtcagcctgctgcgggccactgagccgggtggaaatcctaccta   |
| Qy       | 1778 tgtcactgaggccacccgagtgcagctggtgctgccactcctggtggctgaagctgctgc 1837  |
| DЬ       | 1687 tgtcactgaggccaccegagtgcagctggtgctgcactcctggtggctgaagctgctgc 1746   |
| Qy       | 1838 agccccggctttcctcgaggcgtttgcagccaatgtcctggagccacgagaacatgcatt 1897  |
| DЬ       | 1747 agccccggctttcctcgaggcgtttgcagccaatgtcctggagccacgagaacatgcatt 1806  |
| Qy       | 1898 gctcaccctgttgctggtctacgggccacgagaaggtggccgtggagctccagacccatt 1957  |
| Db       | 1807 gctcaccctgttgctggtctacgggccacgagaaggtggccgtggagctccagacccatt 1866  |
| QУ       | 1958 tettggggtgaaggetgcagcagcagcagttagagcgacggtaccctgggacgaggetggc 2017   |
| Db<br>Qy | 1867 tettggggtgaaggetgeageageggagttagagegaeggtaccetgggaegaggetgge 1926 2018 etggetegetgtgegageagaggeceetteeeaggtgegaeteatggaegtggtetegaa 2077 |
| Db       | 1927 ctggctcgctgtcgagcagaggccccttcccaggtgcgactcatggacgtgtctcgaa 1986  |
| Qy       | 2078 gaagcacctgtggacactctcttcttccttaccaccgtgtggacaaggcctgggcccga 2137   |
| -        |   |

| Db         | 1987 |   | 2046 |
|------------|------|---|------|
| Qу         | 2138 | agtecteaacegetgtegeatgaatgecatetetggetggeaggeettetttecagteca  | 2197 |
| Db         | 2047 | agtcctcaaccgctgtcgcatgaatgccatctctggctgg                      | 2106 |
| Qу         | 2198 | tttccaggagttcaatcctgccctgtcaccacagagatcaccccaggggcccccgggggc  | 2257 |
| Db         | 2107 | tttccaggagttcaatcctgccctgtcaccacagagatcacccccagggcccccgggggc  | 2166 |
| Qy         | 2258 | tggccctgaccccccctccctggtgctgacccctcccggggggctcctataggggg      | 2317 |
| Db         | 2167 | tggcectgaeccceetectetggtgctgaecceteceggggggetectataggggg      | 2226 |
| Qу         | 2318 | gagatttgaccggcaggcttctgcggagggctgcttctacaacgctgactacctggcggc  | 2377 |
| Db         | 2227 |   | 2286 |
| Qу         | 2378 | ccgagcccggctggcaggtgaactggcaggccaggaagaggaagccctggaggggct     | 2437 |
| Db         | 2287 | ccgagcccggctggcaggtgaactggcaggcaggaggaggaggaagccctggaggggct   | 2346 |
| Qy         | 2438 | ggaggtgatggatgttttcctccggttctcagggctccacctctttcgggccgtagagcc  | 2497 |
| Db         | 2347 | ggaggtgatggatgtttteeteeggtteteagggeteeaeetetttegggeegtagagee  | 2406 |
| Qy         | 2498 | agggctggtgcagaagttctccctgcgagactgcagcccacggctcagtgaagaactcta  | 2557 |
| Db         | 2407 | agggetggtgeagaagtteteeetgegagaetgeageceaeggeteagtgaagaaeteta  | 2466 |
| Qy         | 2558 | ccaccgctgccgcctcagcaacctggaggggctagggggccgtgcccagctggctatggc  | 2617 |
| Db         | 2467 | ccaccgctgccgcctcagcaacctggaggggctagggggccgtgcccagctggctatggc  | 2526 |
| Qу         | 2618 | tetetttgageaggageaggeeaatageaettageeeggeetgggggeeetaaceteatta | 2677 |
| D <b>b</b> | 2527 | tetetttgageaggageaggeeaatageaettageeegeetgggggeeetaaeeteatta  | 2586 |
| Qу         | 2678 | cctttcctttgtctgcctcagccccaggaagggcaaggcaagatggtggacagatagaga  | 2737 |
| D <b>b</b> | 2587 | cctttcctttgtctgcctcagccccaggaagggcaaggcaagatggtggacagatagaga  | 2646 |
| QУ         | 2738 | attgttgctgtattttttaaatatgaaaatgttattaaacatgtcttctgcc 2789     |      |
| Dh         | 2647 | attgttgctgtattttttaaatatgaaaatgttattaaagatgtcttctgcc 2698     |      |